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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,545	02/11/2004	May L. Chan	96112	9524

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NAVAIRWD
COUNSEL GROUP (CODE K0000D)
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CHINA LAKE, CA 93555-6100

EXAMINER

FELTON, AILEEN BAKER

ART UNIT	PAPER NUMBER
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3641

DATE MAILED: 08/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/779,545

Applicant(s)

CHAN ET AL.

Examiner

Aileen B. Felton

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/11/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer et al(5,996,501).

Spencer et al discloses a composition that comprises 25 % of RDX, 30 % of AP, 33 % of Al, and 12 % wax binder (col. 3, lines 34-36). The exact amounts and the use of HMX is not disclosed.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the parameters of the explosive such as the amount of binder and oxidizers to achieve a desired result. It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955). It would also have been obvious to use HMX in place of RDX because they are similar nitramines and also since Spencer indicates in col. 3, line 30-31 that either RDX or HMX can be used.

Art Unit: 3641

3. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spencer et al (5,996,501) as applied to claims 1-5 above, and further in view of Martin et al (6,503,350).

Martin et al teaches that one can vary the size of the metal particles such as aluminum in order to tailor the burn rate for the desired application (col. 6, lines 42-55). It is also taught that the range of metal particles sizes is from about 10 nm to about 40 micrometers (col. 7, lines 5-10).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the particles sizes as taught by Martin since Martin suggests that the particle size can be varied in order to modify the burn rate of the propellant. It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

4. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baldwin et al(3,804,683).

Baldwin et al discloses a composition that comprises 20.5 % of Al, 30.2 % of HMX, 19 % of AP, and 10.1 % of binder. The exact amounts are not disclosed.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the parameters of the explosive such as the amount of binder and oxidizers to achieve a desired result. It is well-settled that optimizing a result effective variable is well within the expected ability of a person

Art Unit: 3641

of ordinary skill in the subject art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

5. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baldwin et al(3,804,683) as applied to claims 1-5 above, and further in view of Martin et al (6,503,350).

Martin et al teaches that one can vary the size of the metal particles such as aluminum in order to tailor the burn rate for the desired application (col. 6, lines 42-55). It is also taught that the range of metal particles sizes is from about 10 nm to about 40 micrometers (col. 7, lines 5-10).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the particles sizes as taught by Martin since Martin suggests that the particle size can be varied in order to modify the burn rate of the propellant. It is well-settled that optimizing a result effective variable is well within the expected ability of a person of ordinary skill in the subject art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980), In re Aller, 220 F.2d 454, 105 USPQ 233 (CCPA 1955).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aileen B. Felton whose telephone number is 703.306.5751. The examiner can normally be reached on Monday-Friday 6:30-4:00, except alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on 703.306.4198. The

Art Unit: 3641

fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


AILEEN FELTON
PRIMARY EXAMINER